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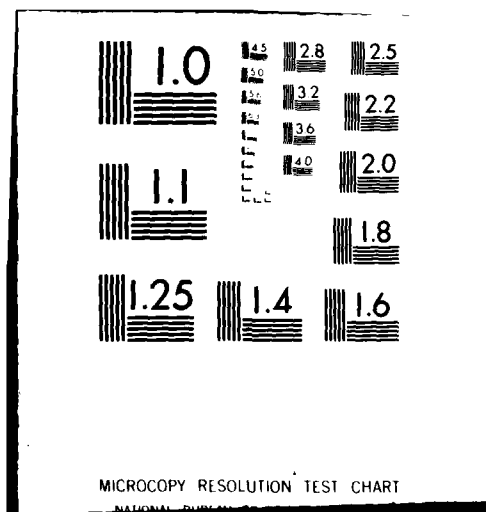
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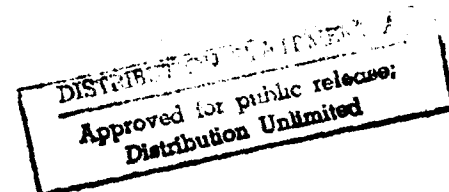
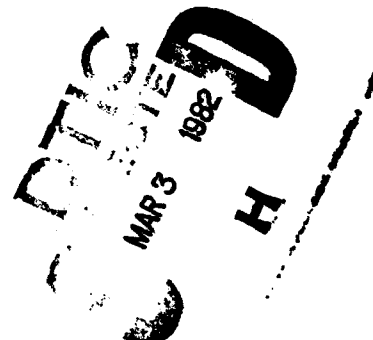
**Report To The Chairman
Committee On Energy And Commerce
House Of Representatives
OF THE UNITED STATES**

**The Federal Government Should Encourage
Early Public, Regulatory, And Industry
Cooperation In Siting Energy Facilities**

Efforts to expand domestic production of coal, synthetic fuels, and other energy sources have fallen behind expectations. One reason has been the inability to effectively identify acceptable sites for energy facilities--reconciling the conflicts between the need for domestic energy development, and the need to protect the environment and the public's voice in decisionmaking.

Recent experience shows, however, that early and active involvement by regulatory agencies and the public in finding sites for new energy facilities can prevent or alleviate costly, last-minute conflicts industry frequently encounters in choosing sites on its own. In this report, GAO discusses this promising "open site planning" concept, analyzes why it is not used more frequently, and recommends actions the Federal Government can take to encourage its use.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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The Honorable John D. Dingell
Chairman, Committee on Energy
and Commerce
House of Representatives

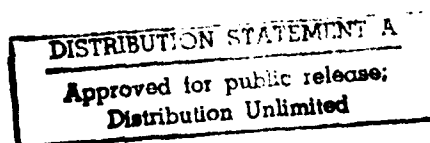
Dear Mr. Chairman:

This report describes the state-of-the-art in open planning for energy facility sites. It responds to your request that we evaluate the open site planning concept. We found the concept promising and are recommending its broader use.

As arranged with your office, we plan to restrict further distribution of this report for 30 days from the date of the report, unless its contents are released by your office before that time.

Sincerely yours,

Comptroller General
of the United States



COMPTROLLER GENERAL'S REPORT
TO THE CHAIRMAN, COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

THE FEDERAL GOVERNMENT SHOULD
ENCOURAGE EARLY PUBLIC, REGU-
LATORY, AND INDUSTRY COOPERATION
IN SITING ENERGY FACILITIES

D I G E S T

Planning can be improved and costly, time-consuming licensing conflicts can be minimized if energy facility sponsors effectively consult with regulators and the public about their concerns early in project plans, while plans are still flexible.

The Chairman, House Committee on Energy and Commerce, asked GAO to find out whether such "open site planning" can help balance energy and environmental concerns, and what role, if any, the Federal Government should play in increasing the use of open site planning processes.

Before preserving the Nation's environment became a major concern, utilities based their decisions for selecting and developing sites for major energy facilities on economic and technical considerations.

The traditional industry approach of deciding privately on a site, then announcing the siting commitment and defending it complements the typical regulatory process which is normally structured to focus on a single industry proposal. However, the result of this "decide-announce-defend" siting process has often been extended conflict and controversy. Reasons cited include:

- Project sponsors are reluctant to revise plans after applying for licenses because of their time, money, and psychological commitments.
- Misunderstandings occur between industry and regulators about topics to be covered and techniques to be used in supporting applications.
- Eleventh-hour public hearings raise valid issues requiring additional time and money to address.
- The adversarial nature of regulatory proceedings promotes conflict and polarization, not negotiation and compromise.



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--Opposing sides may continue conflicts through time consuming and costly administrative and judicial appeals.

Siting controversy has, of course, had many other causes such as poor industry planning, citizens' hard-core ideological opposition to industrial development or nuclear technology, and changing or poorly administered regulatory requirements. However, many believe siting controversy is aggravated by limiting direct participation by the public and regulators to eleventh hour adversarial regulatory processes and related judicial reviews. (See pp. 2 to 5.)

A NEW APPROACH

Opening the site planning process to regulators and the public can potentially save time and money and result in more acceptable energy facility planning. Although open site planning is not yet common practice, elements of it have been used in many situations.

"Early" and "open" are the most important characteristics of this still evolving planning process. "Open" means comprehensively identifying, understanding, and addressing during site planning the concerns of not only industry but also regulatory officials and the public who will be called on to accept proposed energy facilities. "Early" means timing these consultations among interested parties before the project sponsor's invested time, money, and detailed planning commit it to one facility site and development plan. (See pp. 5 to 7.)

In several open site planning processes GAO reviewed, industry initiatives included regulators and the public as early advisors rather than just reactive reviewers and often adversaries. (See pp. 9 and 14 to 19.) In other instances, regulators and the public took major initiatives in finding sites for energy facilities rather than just reacting to private project sponsors' site planning. Facilities concerned range from powerplants to synfuel facilities. (See pp. 9 to 14 and 20 to 25.) Numerous organizations and individuals were contacted in reviewing these siting processes. (See pp. 38 to 40.)

The relative newness of open siting and Federal regulations requiring earlier, more open Environmental Impact Statement (EIS) processes limit the

information available. While available experience and evidence are insufficient to fully assess the effects of open site planning, GAO found that most participants were satisfied that it improved the siting process. (See pp. 9 to 25.)

However, open site planning is not yet common practice. While its newness partly accounts for its limited use, more important reasons range from lack of knowledge about managing effective public involvement processes, to distrust between participants, and reluctance to change traditional practices. (See pp. 27 to 29.)

POSSIBLE BENEFITS

Early consultations with regulators and the public can potentially improve industry's facility siting plans and reduce uncertainty regarding the acceptability of industry proposals for energy facilities. Many observers see more open site planning as saving time and money for their companies. Such processes also can improve industry's credibility and image. By participating during early stages of site planning, the public potentially can better influence the nature and extent of energy facilities' environmental and socioeconomic impacts. Regulators can pursue their goals more efficiently and effectively because they are given more information and time for planning their licensing and EIS workloads, and because they have early opportunities to advise on criteria and methodologies for siting studies and environmental analyses.

While the potential benefits of open site planning are substantial, they are not assured. These approaches are new and evolving, and designing and managing such planning processes to suit varying siting environments is a formidable challenge. All must be concerned with making public involvement substantive and not superficial as has often been the case.

Open site planning is, in GAO's view, a flexible, voluntary, and cooperative supplement to later regulatory processes. Both these processes can help in balancing domestic energy development with environmental protection and public participation values. Backed by a real commitment and careful organization, open site planning can benefit industry, the public, and the Government. (See pp. 25 to 26 and pp. 30 to 32.)

A MODEST FEDERAL ROLE

Although much of the initiative in siting matters rests with the energy industry and the States, the Federal Government also has a role and can assist in promoting more open, rational, and efficient siting processes. Existing Federal environmental policy is already basically in agreement with the open site planning concept and provides a basis for promoting its expanded use. To achieve such expansion will, however, require the cooperation of industry, the public, and the States. Given better cooperation between siting process participants, open site planning can address many objectives of recently considered Energy Mobilization Board legislation--legislation intended to expedite the regulatory review process for energy facilities. (See pp. 32 to 35.)

There are at least three situations where Federal agencies could, if requested, actively assist in promoting more open site planning:

- Many open site planning processes operate independently of, and sometimes begin well before, initiation of the EIS process. Supporting these industry and State initiatives is, in GAO's opinion, an appropriate Federal activity. For example, one State's site "banking" process searches for acceptable powerplant sites well in advance of specific development proposals. Such processes can raise questions about how Federal regulations might affect potential sites' acceptability. The resulting uncertainty may be minimized by early consultation with Federal officials to clarify the regulations' likely effect.
- Through early and open consultations, the EIS process can be, but usually is not, used as a forum to open up site planning processes. This is due partly to widespread reluctance to involve Federal agencies at an early stage of site planning, and partly to the uneven performance of Federal agencies in initiating EISs before siting commitments are made. This situation can, however, be improved if Federal agencies actively encourage project sponsors and States to voluntarily support starting the EIS scoping process at an early stage of project planning, while siting options are still open. Also, industry and States can use the EIS regulations as a basis for involving Federal agencies early in clarifying potential sites' acceptability.

--Information on different approaches and their results might encourage more traditionally inclined energy facility sponsors and States to try open site planning. Providing such information is, in GAO's opinion, an appropriate Federal activity.

RECOMMENDATIONS

GAO recommends that the Federal Government actively encourage the voluntary growth of open site planning processes for energy facilities. These siting processes should supplement, not supplant, traditional Federal roles in balancing energy development with environmental protection and public participation values. (See pp. 35.)

The Secretaries of Energy and the Interior, the Administrator of the Environmental Protection Agency, and the Chairman of the Council on Environmental Quality should, where appropriate:

- Cooperate with established open site planning processes where later Federal involvement is likely. Some industry and State processes that operate independently of, and begin well before, the EIS process or permitting process may want early input from Federal agencies.
- Encourage an early open EIS process, as conceived under the 1978 regulations implementing the National Environmental Policy Act (NEPA), that facilitates more open site planning for energy facilities. Specifically, early scoping that identifies regulatory and public concerns about alternative facility sites can help all interested parties clarify sites' acceptability and plan early to minimize conflicts.
- Advise siting process participants who are unfamiliar with it about experiences with open site planning so they can assess its usefulness, and cooperate with efforts to begin using such processes. This should be done in connection with agencies' existing NEPA responsibilities to consult with project sponsors during early planning.

AGENCY COMMENTS

The four agencies that provided formal comments on this report generally considered it accurate and agreed with its recommendations. The comments came from the Council on Environmental Quality, the Environmental Protection Agency, and the Departments of Energy and the Interior. (See pp. 41 to 48.)

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ABBREVIATIONS

CEQ	Council on Environmental Quality
DOE	Department of Energy
DOI	Department of the Interior

EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
GAO	General Accounting Office
NEPA	National Environmental Policy Act
REA	Rural Electrification Administration

CHAPTER 1

INTRODUCTION

In a letter dated April 18, 1980, the Chairman, Committee on Energy and Commerce, asked us to evaluate the concept that regulatory and general public concerns about energy projects, as well as the concerns of industry over unnecessary delays and added costs, can be most rationally and effectively addressed if considered early in the siting process, when project plans are flexible enough to accommodate them. In this context, we were asked to review Federal agencies' early involvement in energy facility planning under the Council on Environmental Quality's 1978 regulations implementing the National Environmental Policy Act (NEPA), and improvements that might be realized through similar early involvement in the site selection process by State and local governments and the general public.

BACKGROUND

The 1973 embargo on oil imports highlighted the danger of excessive dependence on imported energy and the need to increase domestic energy production. Since that time prices have increased dramatically and supplies are increasingly threatened by political instability among oil exporters. Yet, efforts to expand domestic production of coal, synthetic fuels, and nuclear power have fallen far behind expectations. In this regard, a controversial problem has been the inability to efficiently identify acceptable sites for energy facilities--reconciling the conflicts between the need for domestic energy development and the need to protect the environment and the public's voice in decisionmaking. Examples of projects that have been delayed or canceled due to such conflicts include proposed refineries at Eastport, Maine and Hampton Roads, Virginia; nuclear reactors at Seabrook, New Hampshire and elsewhere; the Alaskan and California-Texas (SOHIO) oil pipelines; coal-fired powerplants at Kaiparowits, Utah and Colstrip, Montana, and others.

The Congress has recognized the problem and has considered energy facility siting legislation on several occasions, without enacting a national policy. Most recently, a Federal Energy Mobilization Board to expedite energy facility siting was rejected after long and heated debate. Recurring themes of the Congress' siting debates include

- interest in promoting more efficient decisionmaking processes for energy facility siting;
- reluctance to authorize Federal intrusions into traditional, fiercely defended State and local jurisdiction over siting/land use planning;

--reluctance to compromise broadly supported environmental protection laws, regulatory processes, and related public participation values; and

--interest in defining a siting role for the public that is both fair and efficient.

The evolving siting process

Historically, siting of major energy and other industrial facilities was an uncontroversial planning task performed by industry. Industry's main criteria in selecting sites for energy facilities were economic and technical viability. Siting decisions required little or no direct public or Government participation. In fact, such participation would have been viewed as unwarranted and as an unnecessary intervention in industry's affairs.

During the 1960s and 1970s, pollution, often caused by energy and other industrial activities, attracted increasing public criticism and resulted in enactment of many Federal and State environmental protection laws. This legislation caused profound changes in the process of siting energy facilities. Regulatory agencies, and through them the public, became major participants in the process, and licensing requirements and selection criteria multiplied. As selection criteria became more numerous and technically complicated, choosing sites became more complex. As more outside reviews and licenses were required, timely approval became more uncertain.

Growth in regulatory requirements and related siting process complexity are illustrated by the chart below. It shows the increasing average number of permits required for 20 powerplants between 1961 and 1977.

<u>Planning phases ending</u>	<u>Average no. of permits</u>	<u>Sitings included</u>
Before 1970	2.1	8
1970 - 1974	18.4	5
1975 - 1980	29.1	7

Source: National Rural Electric Cooperatives Association data.

Besides increasing siting's technical complexity, proliferating licensing requirements introduce more participants into the process. Increasing involvement of different Government levels and agencies increases chances for duplication of, and disagreement between, regulatory requirements. More regulatory processes also increase siting complexity by providing more opportunities for public participation.

Wide variations in time required for regulatory and public review of proposed energy facilities add uncertainty to energy project planning. Unexpected delays can disorganize project

schedules and inflate costs. But extending environmental reviews and public comment periods can also improve evaluation and mitigation of project impacts.

Facility planners' uncertainty about leadtime needed to complete environmental review and permit requirements is based on experience, as illustrated by case studies of selected coal-fired powerplants. ^{1/} These case studies showed, for example, that time to complete Corps of Engineer dredge and fill permits and EPA Prevention of Significant Deterioration permits ranged from under 1 year to more than 3 years, and Environmental Impact Statements took from 1 year to over 5 years to complete.

Of special significance among laws affecting the siting of major industrial facilities (including powerplants, refineries, and synfuel plants) is the National Environmental Policy Act of 1969. The Environmental Impact Statement (EIS) process it established can provide

- an overall assessment of proposed projects' impacts, as opposed to piecemeal reviews of impacts on air, water, waste disposal, and so on;
- a forum for evaluating and discussing alternatives to energy facility proposals, alternative sites being among the major choices that define and allocate the impacts; and
- a forum for involving the public with project sponsors and regulators in an informed assessment of planning for domestic energy facilities.

The Act's effect in broadening of participation in siting is described below:

"Insofar as the requirement of an Environmental Impact Statement served to provide both the justification and the means for environmental groups to participate officially in the review of powerplant proposals, the legitimacy of citizen involvement in the decision process--albeit at a late stage--was firmly institutionalized. And, moreover, with the dramatic increase in environmental awareness during the early 1970s it soon became clear that concerned citizens would take full advantage of the additional opportunities for legal intervention afforded by NEPA." ^{2/}

^{1/}Department of Energy, Permit Studies For the Energy Coordinating Committee, Washington, D.C., 1979.

^{2/}Dennis Ducsik and Thomas Austin, Citizen Participation In Power Plant Siting: An Assessment, Worcester, MA: Clark University 1979, pp. 11-12.

Although environmental laws and regulations introduced many new participants and criteria, we were told the energy industry has largely retained its traditional facility siting approach of deciding on the location, announcing the decision, and then defending the selection through the regulatory and public review processes. Project sponsors and their consultants often continue to minimize direct consultations with regulators and the public until a site is decided on and site specific permit applications prepared. In such cases, the facility sponsor is often hurrying to start construction because equipment is already ordered, financing arranged, and construction schedules planned. Unexpected "eleventh hour" delays are costly. Further, the sponsor is often committed to a specific site because considerable time and money are invested in site specific environmental studies and engineering, and no backup sites are readily available. At this point, for all practical purposes, the sponsor has little flexibility left and must defend the specific facility siting plan announced in license applications.

In some ways, this traditional industry approach seems consistent with the normal regulatory process. Regulatory processes also tend to focus on a single facility proposal and require considerable detailed information on the proposed site and facility in license applications. However, the result of this typical "decide-announce-defend" siting process has often been extended conflict and controversy. Reasons cited include:

- Project sponsors have great incentive not to revise plans after applying for licenses because of their time, money, and psychological commitments.
- Misunderstandings occur between industry and regulators about topics to be covered and techniques to be used in supporting applications that delay regulatory reviews.
- "Eleventh hour" public hearings surface valid issues requiring additional time and money to address.
- The adversarial nature of regulatory proceedings promotes conflict and polarization, not negotiation and compromise.
- Polarized siting participants may continue conflicts through time consuming, costly administrative and judicial appeals.

Siting controversy has, of course, had many other causes such as poor industry planning, citizens' hard-core ideological opposition to industrial development or nuclear technology, and changing or poorly administered regulatory requirements. However, many believe siting controversy is aggravated by largely limiting direct participation by the public and regulators to the "eleventh hour" regulatory processes and related judicial reviews. Unanticipated issues arising at this late stage have

increased industry uncertainty about delay and have led to cost increases or even project cancellation. Reviewing projects after large investments have been made can result in undue pressure on regulators to quickly approve licenses. Late public disclosure and ineffective participation processes tend to increase public resistance to proposed energy projects. Many now question if the traditional relationships and interactions are rational and efficient where the siting environment has changed, and thus alternative processes for site planning and decisionmaking are seeing increased use.

In a more concrete example, an official of a northwestern utility said, "We're coming out of a pretty bloody battle." He reported the company originally decided in 1971 to site two new powerplant units at an existing powerplant site, basically without including regulators or the public in its site planning process. In subsequent regulatory proceedings, the company encountered many unpleasant surprises from regulators and the public. The project was further complicated by major amendments to the Clean Air Act.

The reported effects of this extended controversy included delays (plant operations will start in 1983 and 1985 instead of 1975 as planned), cost increases (about \$1.8 billion for both units instead of \$800 million), and years of effort, expense, uncertainty, and conflict for industry, the public, and Government officials.

A company representative explained that after the long battle

"* * * there was a lot of incentive to try another way. Surprises are what hurts and the later one gets surprised the more it hurts. Surprises can't be ignored now, they must be dealt with. We want to know as much as we can about possible objections as early as possible--when they can be changed with an eraser instead of millions of dollars."

This experience influenced the company to seek considerably more communication with regulators and the public before choosing a site for its next powerplant. As a result, a company official said the more recent siting has taken a more predictable course, with no real surprises. The project is within its planned schedule, and the issues are being addressed in a consultative rather than confrontational atmosphere.

OBJECTIVES, SCOPE, AND METHODOLOGY

The general objective of this study is to evaluate the desirability and feasibility of broader early participation in planning the location of energy facilities. The general hypothesis is that planning can be improved and costly, time consuming licensing

conflicts can be minimized if energy facility sponsors effectively consult with regulators and the public about their concerns early in project planning while plans are still flexible. This concept, which we call "open site planning," essentially concerns the process by which decisions are made about the location of energy facilities. "Early" and "open" describe the two main characteristics of this planning process, as defined below. "Open" means comprehensively identifying, understanding, and addressing during site planning the concerns of not only industry but also regulatory officials and the public who will be called on to accept proposed energy facilities. "Early" means timing these consultations among interested parties before the project sponsor's invested time, money, and detailed planning commit it to one facility site and development plan.

Our specific objective was to answer two questions about processes that provide open and early participation in planning for industry sponsored energy facilities:

1. Can earlier, more open planning processes for energy facility siting help us balance our energy and environmental goals?
2. If so, what role can the Federal Government play in increasing the use of these processes?

The participants in energy facility siting generally can be classified into four groupings:

- Industry, meaning the energy project sponsors, their partners, and consultants or contractors.
- The public, meaning individuals or groups generally interested in, or specifically affected by, energy facilities.
- State and local government agencies which approve site plans.
- The Federal Government agencies with energy development, environmental protection, and land-use planning responsibilities.

Our review included all four participant groups and resulted in direct contact with persons in each group, ranging from extensive, detailed discussions of specific cases to general discussions of siting related experiences, literature, and policy. Industry contacts included representatives of more than 40 energy companies, related consultants, and industry associations. Public contacts included numerous individuals and organizations with specific experience and general interest in energy facility siting. Representatives of all 50 States and several local governments were

included along with related interest groups. Many Federal organizations were contacted but substantial input came from the Council on Environmental Quality (CEQ), the Environmental Protection Agency (EPA), the Army Corps of Engineers, the Agriculture Department's Rural Electrification Administration, the Departments of the Interior and Energy, and the Tennessee Valley Authority (an independent Federal corporation). A representative list of organizations and individuals contacted is in appendix II.

Our methodology was to find instances where open site planning was used and learn how it worked by talking with the people involved. Wherever possible we contacted representatives of all four participant groups in each case to learn their perceptions.

In selecting examples of site planning processes to examine, our main criteria were (1) early involvement of regulatory officials and the public in site planning processes, (2) applicability of CEQ's regulations requiring similar early and broad involvement in the EIS process, (3) how complete the case was, (4) covering different areas of the country, (5) involving different energy technologies, and (6) availability of our resources.

Our main criteria for evaluating the "success" of open site planning or related EIS processes were (1) time and money saved or lost and (2) participant satisfaction or dissatisfaction. To quantify the effects of broader early participation in site planning, we hoped to document savings or losses in time and money attributable to the siting process. However, we could not meaningfully compare times and costs between traditional and more open site planning processes. Observers consistently cautioned that differences in the energy facility siting environment from year to year and State to State were too great to allow really valid empirical comparisons of siting process times or costs. Further, we found no energy project sponsors that systematically separated siting process costs from other facility planning costs. Therefore, we had to rely primarily on views and opinions of those interviewed, which in most cases were based on experience and perceptions rather than systematic analysis.

The relative newness of open siting and Federal EIS regulations is a major limitation on information available. We found that open siting was not common practice; thus, examples we could examine were quite limited. Further, where we found fairly "open" siting processes, they were often incomplete. For example, some projects had been deferred because of reduced energy demand or financing problems. Other projects were basically on schedule but not yet finished.

Despite these limitations, we believe that the organizations contacted are representative of those most involved in broadening early participation in site planning processes, and that this report provides timely insights into the evolving state-of-the-art.

CHAPTER 2

OPEN SITE PLANNING

Traditional roles and relationships in energy facility siting are evolving. In several siting processes industry initiatives have included regulators and the public as early advisors rather than just reactive adversaries. In other instances, regulators and the public have taken major initiatives in finding sites for energy facilities, rather than just reacting to private project sponsors' site planning. While experience with earlier, more open planning for energy facility sites remains limited and the results hard to measure, industry, regulators, and the public were quite consistently satisfied with such processes. Nevertheless, effective open site planning processes are challenging to design and operate, and they provide no guarantee that conflict will be avoided.

OPEN SITE PLANNING IS GAINING SOME ACCEPTANCE

Open site planning is currently seeing only modest use. Our survey of site selection practices showed that open site planning is not common practice, although elements of it were used in many situations. The limited experience with open site planning suggests its potential to save time and money, and result in more acceptable energy facility planning. But, experience is insufficient for conclusively evaluating the many techniques in use and their results.

Industry and States' experiences with open site planning are briefly characterized below, followed by some discussion of related Federal initiatives. Then, to illustrate how open site planning processes work, four instances are described more fully.

Initiatives in open site planning--a brief survey

Industry, States, and Federal agencies have initiated many different processes for open site planning. Differences between these processes are often attributed to the need to tailor siting processes to suit a specific siting environment. Variables in the siting environment that can influence how siting processes are designed include general public and Government attitudes toward industrial development, energy supply and conservation, environmental protection, socioeconomic impacts, local autonomy and other factors. Recognizing the considerable variation in siting environments around the country, no one suggested that any single open siting process was suitable as a standard system for getting all participant groups involved early and constructively.

Industry initiatives

While closed site planning ("decide-announce-defend") is still prevalent in the energy industry, siting problems have motivated some companies to try more open siting processes. Companies trying open siting are generally satisfied, many perceiving that it saved time, money, or reduced risk of delay. However, few facilities involved have been completed, and we found no detailed evaluations by companies of their open site planning processes. Although most said open siting's potential benefits justified the risks, some were dissatisfied, and none said it was a cure-all for siting problems.

We found eight industry initiated siting processes that closely related to the concept of open site planning. Seven were initiated by companies sponsoring specific energy facilities and one by a large engineering firm offering a siting/environmental licensing service. The facilities most frequently involved were powerplants, but others included electricity transmission lines, pumped storage for hydroelectricity, and coal gasification.

Two of the open site planning processes we found began during the 1960s, and the results were basically unsatisfactory. We found two more open site planning processes that began during the early 1970s, and four that began since 1975. Participants we contacted were generally satisfied with these more recent siting processes, but conclusive results were quite limited as only one powerplant and some transmission facilities have been completed.

These industry initiated open site planning processes generally resulted in voluntary advisory relationships between the project sponsor and public or Government participants. Advice provided covered several aspects of siting and ranged from very early suggestions about siting criteria and methodologies, to comments on the suitability of the last few candidate sites.

In addition to these eight instances that closely related to the concept, we also identified other industry initiated facility planning processes that involved some elements of open site planning. Such initiatives were taken by at least six electric utility companies, one other consulting firm doing siting studies, and companies in mineral development and steelmaking.

State initiatives

States play key roles in energy facility siting. All States influence siting indirectly, and some are becoming directly involved in choosing between prospective energy facility sites--a choice traditionally reserved to industry. While there is a trend among States toward addressing siting issues more directly, patterns of similarity among States extend little further. General observations about States' siting approaches or results are limited by the diversity of their siting environments, processes, and experiences and by the few available examples of completed facilities.

Thirty States have statutes specifically relating to energy facility siting. Most siting statutes concern electric power-plants. Some States also include transmission lines, synthetic fuels plants, liquified natural gas terminals, uranium enrichment plants, oil refineries, and large industrial plants in their siting statutes' coverage.

While States' diverse siting policies and laws often include features related to open site planning, eight States' siting activities related most closely to our concept. These States developed their siting policies during the 1970s. Their approaches to energy facility siting vary considerably, including, for example, a completely State operated powerplant site selection and acquisition program (Maryland), a State organized siting advisory group whose involvement is quite flexible (Utah), and State operated processes that evaluate alternative sites through mandatory processes with a regulatory character (California, Minnesota). The Joint Review Process being developed in Colorado, while basically a regulatory process, also relates to the open site planning concept through its emphasis on early and open review of project issues including site acceptability.

Participants we contacted expressed varying opinions about these eight States' siting processes. While most participants were fairly satisfied with State operated open site planning they experienced, many were dissatisfied with some aspect of the State process. For example, some industry representatives said the regulatory type of process required more detailed site specific information on alternative sites than was needed to select a preferred site. They said this unneeded detail raised siting costs. In other cases, State operated public involvement processes relied on formal public hearings which were seen by some as relatively ineffective for getting the public involved in planning. For example, we found that a public hearing at the end of a planning effort can be too late to foster meaningful public involvement. At this point the public is put in the position of reacting to decisions already made, rather than having an opportunity to affect decisions. When public involvement comes late in the planning process there is greater reluctance to make changes. Instead, there is a tendency to defend previously made plans and decisions. ^{1/} Also, the usually formal and often adversarial nature of public hearings is considered somewhat intimidating and inhibiting to public participation. On the other hand, some States' efforts to develop more informal and less adversarial public involvement forums appeared to make public involvement more effective.

^{1/}U.S. General Accounting Office, Public Involvement In Planning Public Works Projects Should Be Increased, Washington, D.C., Dec. 6, 1974, B-153449, pp. 3-4.

Federal initiatives

In recent years the involvement of the Federal Government in energy facility siting has been mostly through reactive, permitting processes, but several initiatives in the direction of open site planning have been taken. The most far reaching initiative was the CEQ's November 1978 regulations implementing NEPA and its EIS process. These regulations replaced guidelines under which the EIS process had been operating. While we found other Federal agency activities that related to the open site planning concept, we concentrated on the Council's recent EIS regulations.

Early, open EIS processes--The need for a Federal permit to build a major energy or other industrial facility usually triggers the requirement for an Environmental Impact Statement. This statement is to assure that environmental factors have been considered before Federal permitting action is taken. Problems reported by us in previous work ^{1/} and by others included late environmental statements that either delayed projects or were too late to be useful, duplication and sequential rather than concurrent environmental reviews between Federal agencies and different levels of Government, and inadequate guidance for permit applicants by Federal agencies.

The Council sought to correct many siting related problems by revising Federal policy on environmental review and permitting through its 1978 regulations. Major characteristics of the revised Federal policy are consistent with the concept of open site planning. Specifically, openness is emphasized by requiring Federal agencies to consult with the project sponsors, appropriate local, State and Federal agencies, and private parties and organizations about environmental issues and requirements. Early involvement is emphasized by requiring agencies to facilitate applying the EIS process at the earliest possible time in project planning, preferably before applying for licenses.

Ideally, according to Council officials, the early stages of the EIS process should occur before the energy project sponsor becomes committed to a single site. Specifically, the stage called "scoping" can provide timely input into the process of evaluating a few most promising final candidate sites, as well as planning the EIS. Scoping is described in the Council's EIS regulations (40 CFR 1501.7) as "an early and open process for determining the scope of issues to be addressed." Scoping meetings can provide a forum for regulators and the public to review candidate sites and discuss their acceptability. But project sponsors have usually chosen a site and prepared for permitting before approaching Federal agencies to start an EIS. Because the regulations bind

1/U.S. General Accounting Office, The Environmental Impact Statement--It Seldom Causes Long Project Delay But Could Be More Useful If Prepared Earlier CED 77-99, Aug. 9, 1977.

only Federal agencies, they do not require other EIS participants to begin the EIS process early enough so that planning for site selection can be coordinated with the EIS.

Initial Federal efforts toward earlier, more open and better coordinated EIS processes have been uneven but show that EISs can be effectively coordinated with energy facility siting. On the other hand, problems starting EISs early show the need for voluntary cooperation by both Federal and non-Federal participants.

Indications of uneven Federal efforts came from several quarters. For example, some agency officials were unsure of their responsibilities to " * * integrate the NEPA process with other planning at the earliest possible time * * *" including providing "for cases where actions are planned by private applicants or other non-Federal entities before Federal involvement * * *" (40 CFR 1501.2). In one case, EPA Regional officials had contacted sponsors of some proposed energy facilities in their region but not others and were uncertain of their responsibility to initiate early discussions with private project sponsors. Other agencies' officials shared this uncertainty, especially as they saw no "authority" to start an EIS before a permit application was filed. One agency's NEPA coordinator explained that it is still usually the sponsor's application that triggers the Federal response, even though CEQ argues for early involvement. Despite the uncertainty, several agencies cited examples of early, informal consultations with private project sponsors, and DOI reported it would act on a letter of intent from a sponsor as though it were an application.

In another case, a powerplant's sponsor reported that it took 9 months to firmly establish a lead Federal agency for an EIS. Six months of their search were conducted after the CEQ regulations' effective date, July 30, 1979. Candidate lead agencies included the Corps of Engineers and the Interior Department's Water and Power Resources Service. Both agencies' regional offices expressed concern about lacking resources for the task. After the sponsor met with Interior's NEPA coordinator in Washington, D.C., the Water and Power Resources Service was chosen as lead agency within a month.

We found no contacts between Federal agencies about a lead agency for this facility until 8 months after the sponsor began its search. At one point, DOI invited representatives from the sponsor, the Washington State Siting Council, and several Federal agencies to a Washington, D.C., meeting on the EIS. No Federal agencies except those within DOI attended the meeting. Negotiations began at this meeting that eventually led to an agreement for a joint EIS between the State Siting Council and DOI.

In another case, a private project sponsor chose not to begin the EIS early. The developer applied only for local and State approvals for a coke plant and then began construction at the plant site in September 1979. However, it was anticipated

that part of the project would require a Corps of Engineers permit and related EIS. Concerned local citizens asked that an EIS be prepared before facility construction and the related environmental impacts began. The Corps responded that it could do little before receiving a permit application. The Council, in a letter about the EIS for this facility, referred the Corps to its 1978 regulations and stated:

"Where Federal involvement is reasonably foreseeable, the agency should communicate with the potential applicant in advance, before any firm commitments and construction begins, so that the NEPA process, consideration of alternatives and possible mitigation measures can influence project location and design * * *."

The Corps has since notified the developer that an EIS may be needed and asked about its plans. But Corps officials noted they cannot require early, pre-licensing consultation with non-Federal entities.

As an independent Federal corporation, the Tennessee Valley Authority is bound by the Council on Environmental Quality's regulations requiring open, coordinated EISs during early project planning. As a regional resource development agency and the nation's largest electric power producer, the Authority has sited dams, powerplants, and projects to demonstrate emerging energy technologies. We reviewed the ongoing siting and EIS process for the Authority's proposed coal-gasification demonstration facility and found it moderately effective in involving regulators and the public early.

The Authority's siting system consists of separate but related processes for inventorying potential future sites and choosing sites for specific proposed facilities. The site inventory process covers large areas, through long-term studies to identify, investigate, and select sites suitable mainly for coal or nuclear powerplants. The facility-specific siting process assesses alternative candidate sites for specific proposed projects--developing more detailed evaluations of potential sites.

A strong point in the early planning for the Authority's coal gasification facility was the extensive early coordination between the Authority and the EPA on identifying the expected effluents from coal gasification. According to EPA, this coordination should speed the development of a guidance pollution control document for coal gasification, and speed the permitting of the Authority's facility. Other positive features included the Authority's efforts to involve the public in its EIS process by developing and using an extensive mailing list of interested persons, and providing a toll-free telephone number for persons seeking information on the project and the EIS.

One weaker point in the Authority's early planning was its failure to involve the Corps of Engineers in the EIS process early,

although a permit and EIS approval were needed from the Corps. Another weak spot was holding a public scoping meeting at only one of the two final candidate sites. This tends to create the impression that the siting decision is already made, although Authority officials said the site choice was still open. Also, the scoping meeting's public hearing format was criticized as discouraging participation by being somewhat intimidating (formal public hearings are widely considered relatively ineffective public involvement techniques).

The Authority's efforts to promote early discussion about siting also illustrates the voluntary nature of early siting consultations. While officials of the Authority and Alabama discussed the EIS process and environmental standards pertaining to the candidate sites, Alabama officials declined invitations to early visits of the two sites. State officials said neither site had significant environmental limitations: thus, they preferred to save their resources by waiting until one site was chosen to begin site specific work. On the other hand, EPA representatives visited both final candidate sites fairly early.

The preceding examples illustrate some of the problems and learning processes in improving EISs' timing (and more generally, in implementing new policies). However, we found cases where the EIS process effectively influenced energy facility siting. For example, the Bureau of Land Management's EIS scoping process influenced the routing of a proposed coal slurry pipeline. The Bureau consulted State officials in arranging nine scoping meetings with the public and regulators along the pipeline's 1,300 mile route. In response to concerns discussed during the scoping process, the project sponsor altered the pipeline route in two States. Also, participants agreed that the well publicized meetings reduced public concern and targeted issues that the EIS should address.

Illustrations of open site planning

The potential for linking the EIS with site selection processes is illustrated in more detail below, along with three other descriptions of how open site planning processes worked. The following more detailed examples of open site planning include industry, State, and Federal initiatives spanning the period from 1970 to 1980.

Northern States Power Company

An early example of industry operated open site planning showed its potential to break a pattern of siting conflict and reduce related delays, cost increases, and uncertainty. In January 1970, Northern States Power Company initiated an open site planning process for a 680-megawatt (MW) coal-fired powerplant to be located in Minnesota. This open planning experiment was an effort to break 7 or 8 years of continuing conflict over the siting of several energy facilities by Northern States Power. Although the company

eventually won the earlier battles, the resulting confrontational relationship with the public clearly cost it a lot of goodwill and money. A company document analyzing the problem concluded:

"We are getting hammered simply because the public will no longer concede NSP the right to make, by itself, judgements on environmental matters. Yet, that is our posture--defending judgements we have made. Although it is these judgements that are under attack, I believe the public is really attacking the method by which these judgements were reached * * *. Thus, if we want to get off the hook, we must * * * reform the process by which the Company makes environmental decisions."

The resulting "reform" was a company sponsored Advisory Task Force. It included State environmental officials and representatives of citizens' groups and was charged with recommending a site from among company identified candidate sites. Some of the company's frequent critics were on the task force.

Considerable siting work had been done and many planning parameters set before the task force began work. For example, the company had already identified four final candidate sites for the task force to choose from. Still, the task force established its own criteria and requested a wide range of information on siting techniques, electricity planning, and so on as a basis for its work.

The process was not easy. Much information needed to be exchanged concerning techniques for selecting facility sites, environmental protection values, and so on. Also, there was considerable suspicion on all sides at the outset. While suspicion declined somewhat as the participants worked together and as the company proved willing to share information, suspicion never completely disappeared. For example, at one point the task force decided not to hold its meetings in company offices but moved to a neutral site. Also, the group of State officials eventually withdrew from the company sponsored task force. Reasons cited included possible conflict of interest with their roles as regulatory reviewers of proposed powerplant sitings, and State officials' discomfort with criticism from other task force members. The State officials continued parallel but separate meetings to develop their own recommendation on a site.

Both groups finished their work and reported their recommendation to the company by the requested date. The State officials recommended the company's preferred site be developed. The citizens' Advisory Task Force preferred a different site and suggested strict environmental safeguards be designed into the facility and its operating plan.

The company then considered a difficult site choice, choosing between the advice of State environmental officials or its own Advisory Task Force. The company eventually chose the task force

recommended site and agreed to the recommended safeguards. While many factors influenced that decision, the company reported that basically the Advisory Task Force's rationale was considered sounder. Currently, the proposed powerplant is finished and operating at the task force's recommended site.

Company officials were generally quite satisfied with the process. The facility was developed with minimal controversy, " * * * on time and under budget, the first in a long time." Its process not only produced an acceptable site but also dispelled much ill will toward the company created during earlier siting conflicts. The company continued to consult with the Advisory Task Force on other issues and some changes in company policy resulted. Eventually, the company supported a State law on energy facility siting based partly on lessons learned from their open site planning.

Advisory Task Force members were only somewhat satisfied with this early experiment in open site planning. They suggested improvements that included getting the advisory group involved during earlier stages of the siting process, allowing more time, and expanding discussions beyond siting questions. There was some feeling that the citizen participants could be swayed by getting to know company officials personally, and that the citizens were not expert enough about siting after a short task force study to make sound siting judgments or negotiate with the better informed company. In one member's opinion, having State experts operate a siting review group would correct these weaknesses. However, the company was commended for taking the risk of trying to work with some of its severest critics. There were some rough spots and lots of suspicion. But the company's openness, and ultimately accepting the task force recommendation, improved the company's credibility. As one task force member said, "Utilities create a lot of suspicion by withholding information from people and government * * * NSP did a good job."

Pennsylvania Power and Light Company

A more recent industry-operated open site planning experience, while not completed, showed a well managed process can gain the respect of the public and regulatory officials and establish a credible basis for siting proposals.

The Pennsylvania Power and Light Company (PP&L) revised its siting process in 1977 to make it more open. It organized a siting advisory committee as a vehicle for involving the public and regulatory officials early in the siting process for an 800-MW coal-fired powerplant. The main reason for this initiative was a top-management conviction that

"the old method hasn't proved successful. People know many bad decisions have been made and they want to do better. People are very reluctant these days to have decisions imposed on them."

Other encouragement came from an earlier company experiment with public involvement in substation and transmission line siting, and a successful two day discussion of powerplant siting issues with 15 Government officials and private citizens. The expected benefits of using a public advisory committee to guide siting were stated in detail in a 1976 company report: 1/

- Costly delays and legal entanglements could be avoided by having potential problems surface early in the process.
- Citizen involvement can lead to increased understanding and support for proposed projects.
- Increased company understanding of public concerns could improve planning procedures related to them.
- Public dialogue would result in better decisions.
- Even where differences remain, public participation would help build mutual respect and understanding.
- Public participation should improve the atmosphere of trust and cooperation when public agencies review proposed siting applications.

The company devised a two-part approach to address the increasing uncertainty about regulatory and public acceptance. First, it formed a public advisory committee to evaluate its siting criteria and methodology, and improve the siting study's credibility with the public. Second, it intended to use a more comprehensive approach to studying siting problems, thus improving its ability to deal with increasingly numerous and complex regulatory requirements.

The siting advisory committee's major responsibilities were to review siting criteria and methodology recently developed by the company's consultant, review the content and quality of succeeding chapters of the siting study, and use the study to recommend preferred and backup sites for a coal-fired powerplant.

In reviewing the siting study's criteria and methodology, committee members needed technical information to understand how the company operated and its constraints in selecting a site. While some members were well versed in the technical aspects of a utility's operation, most were not. The committee got information about aspects of the company's operation including long-range forecasts, environmental problems, regulations and permits, and other siting factors through numerous briefings. The briefings were arranged by the company's liaison to the committee, who

1/Pennsylvania Environmental Research Foundation, A Report On the Experience of the Public Advisory Committee of Pennsylvania Power and Light Company, Mar. 1979, Philadelphia, PA., p. 3.

carefully managed this and other aspects of committee-company interaction.

The committee reviewed the siting study's progress in detail during monthly meetings. In some instances, the committee criticized the study. Committee members felt at several points that more review was needed to sufficiently screen sites. For example, the committee observed that the pipeline and transmission routings analysis did not conform to the original environmental constraints set by the company. The committee asked for major revisions, which would have increased the study's time and cost. The company agreed that the criticism was valid, and the study was revised accordingly. Similar give-and-take took place at subsequent monthly meetings. When the company disagreed with the committee, a careful feedback process assured that the committee fully understood the reasons.

The committee's reviews began in March and ended in December 1977 with four final candidate sites identified. The committee voted not to recommend a preferred site for the powerplant, choosing instead to endorse a process for selecting a site. However, declining demand growth caused the powerplant to be deferred and site planning for the proposed powerplant was stopped after the four final candidate sites were identified.

Up to the point when the siting process was stopped, public involvement was through the siting advisory committee. A further public involvement process, aimed more broadly at persons specifically interested in the final candidate sites, was planned but not needed. The company realized that during site planning's earlier, non-site specific stages, seeking public involvement through a smaller representative group was more practical than seeking broad general public involvement.

Currently, the company's open site planning process is still in use. The public advisory committee's role has been expanded beyond siting to include broader questions of policy and energy planning.

Participants were quite satisfied with this open site planning process, although it was not completed. Company representatives considered their open site planning process "worth the effort." No systematic empirical analysis of the siting process' results has been made because there was no valid baseline to compare it with and the process was not completed. It clearly requires money, staff time, and "really substantial lead time." Estimated costs for this open site planning effort included \$11,720 in meeting expenses, \$440 in books, materials, and mailing costs; \$86,000 for changes to the technical siting study out of the study's \$450,000 total cost; plus unspecified costs for less than 1 year each of management and secretarial staff time. Total costs are estimated at under \$150,000.

From the company's viewpoint, it is not an easy process to organize and manage, it does not foreclose risks of someone objecting during licensing or in the courts, and the long leadtimes increase risks of technology and regulations changing. But those costs are considered small compared to other siting study costs and tiny compared to a powerplant's cost. Self-interest suggests "taking advantage of early public involvement to reduce the risk of delays later that cost a lot."

A Federal perspective on this siting process was contributed by an official whose responsibilities at the EPA include preparing and reviewing EISs. In his view, the results of evaluating real alternatives early are savings that come later because of better planning and fewer problems in licensing and judicial review. The advisory committee gives the company a good sounding board for its siting and policy questions. While committee members represent only themselves, they bring their individual diverse backgrounds to bear on the committee's work. Also, in his view, the public demonstrates good ability to evaluate and make trade-offs, if involved while real choices remain.

A State official and current Chairman of the advisory committee said open site planning "takes a little extra time at the front end" but will probably save time in the EIS and regulatory reviews. Compared to a Federal Energy Mobilization Board, this official said open site planning and the new Federal EIS regulations can better speed decisions and could also improve decisions, while such a Board would not. However, early consultations with project sponsors can be a problem for regulators. Regulators cannot compromise or appear to compromise their independence by taking firm stands on specific issues before licensing. Still, regulators can tell industry what to consider, clarify what is out-of-the-question, what can be mitigated, and so forth. Then, industry is more certain of the rules it will be judged by and should apply in its siting studies.

Siting committee members from the general public expressed confidence in the siting process, the advisory committee, and the company. One member observed that "the working atmosphere was constructive--much more interactive and communicative than public hearings I've been in on." The advisory committee was described as very broadly representative, its members having nothing personal to gain from participating. Although some aspects of siting are quite technical, explanations in lay terms were seen as adequate to inform committee members on the issues. Factors seen as contributing to the siting process' success were care in choosing committee members, openness of the utility and their consultants, and careful utility organization and management of its relationship with the committee. While the man-in-the-street may not be informed about the utility's efforts, the environmental groups and State officials probably are. Further, future utility proposals on facility siting and other matters will probably benefit from the resulting image of PP&L as a well intentioned and responsible company.

Utah's Interagency Task Force

A well regarded State operated open site planning process was recently established in Utah. This process is somewhat unique among State processes in its voluntary, flexible advisory approach to opening up the siting process.

Utah's Interagency Task Force on powerplant siting was established in August 1977 to resolve problems finding an acceptable site for a 3,000-MW coal-fired powerplant called the Intermountain Power Project. Changes in the Clean Air Act in 1977 made the original site unacceptable to the Secretary of the Interior. The Secretary then supported Utah's Governor in establishing a State sponsored task force to find an acceptable alternative site for the Intermountain Power Project.

The task force was established as an informal, advisory subcommittee of the Utah Energy Conservation and Development Council. It had no legal standing or formal written charter. It was given the specific task of finding an acceptable site for the Intermountain Power Plant and received considerable support and direction from the Interior Secretary and the Governor. No funding was established specifically for the task force. With minor exceptions each member was supported by the organization represented including salary, travel costs, studies supporting the siting process, and so on.

The task force's deliberations (1) excluded questions of need for the project and technology used, (2) were constrained by limited time to consider only sites on which data was already available, and (3) concentrated on establishing the sites' regulatory acceptability.

Although sites' public acceptability was not specifically emphasized in the task force's siting methodology, several characteristics of this task force process promoted public acceptance of its work. For example, the wide spectrum of viewpoints represented by the task force's membership added credibility to its recommendations. Members came from the Federal and State government, county and city officials from areas considered, private citizens and industry. All meetings were open to the public, announced by published notices, and received extensive press coverage. Further, the task force worked with information from a variety of sources. Members and non-members, including the project sponsor, State and Federal officials, and environmental groups, made presentations to the task force. For example, the Sierra Club presented a map outlining areas where it would oppose major energy facilities and areas that were generally acceptable.

The task force established its own criteria and methodology for site selection. The criteria were defined in general terms, allowing members room to reflect their personal values and analysis in their site rankings. The task force assigned weights

to the site evaluation criteria and developed a matrix for rating the 13 candidate sites.

After 2 months the task force referred two alternative sites to the Governor and Interior Secretary, one of which was the primary candidate site. By this time the EIS for the original unaccepted site had been almost completed. The EIS process was extended and refocused in December 1977 to include the new alternative sites. After establishing that it could get needed water, the project sponsor agreed to include the primary candidate site in the EIS (April 1978). In December 1979 the Interior Secretary announced approval for the project sponsors' purchase and use of Federal land at the task force's primary site.

Currently, the Intermountain Power Project has received most major approvals. Detailed engineering and transmission system planning are in full swing, and the facility is on schedule for July 1986 completion of the first boiler. The remaining approvals are expected soon, and site preparation should begin during 1981.

After siting the Intermountain Power Project, the task force demonstrated its flexibility by providing basically a voluntary siting advisory service to five other energy facility sponsors. In each case the facility considered was a coal-fired powerplant. The task force's reviews ranged from several meetings spanning 6 months, to one meeting, depending on the work needed to develop its response.

The task force tailored its efforts to the needs of the energy facility sponsor. For example, one sponsor wanted the task force to rank the sponsor's final candidate sites. Another wanted advice on one site's acceptability, and a third wanted several sites classified according to the likelihood of plant siting conflict. In the last case, the energy company would not have arranged for the task force's review unless that review had been tailored to company needs.

The task force was generally considered an effective forum for providing timely, credible advice on the acceptability of potential energy facility sites.

Industry representatives were quite satisfied with the interdisciplinary siting task force. By clarifying sites' acceptability, it was felt the task force reduced the risk of unexpected objections, related delays, and cost increases. High level support for the task force gave it "political credibility." That task force members representing such diverse viewpoints reached a consensus on siting criteria and methodology made its recommendations very credible. Benefits of the task force perceived by energy project sponsors included: reduced development schedules, reduced risk of premature commitment of resources to a given site, improved use of public resources through more efficient site planning and development processes, and reduced conflict among concerned agencies, private groups, and industry. Also the task

force process was seen as reducing chances of polarizing interested groups by serving as a constructive "lightning rod" for viewpoints and criticisms of potential sites.

Federal agency participants considered the task force very effective in quickly siting the Intermountain Power Project. They said high level support and direction from the Governor and Interior Secretary enhanced cooperation among agencies. Early and direct contact among agencies helped them identify and resolve issues critical to their responsibilities. The interdisciplinary process reduced chances of later disagreements during the EIS process and improved coordination with State and local agencies. Further, the task force concept encourages industry and States to give more consideration to alternatives rather than focusing on one site and fosters site decisions based on more than one perspective. However, there was some concern about early task force reviews appearing to compromise regulators' objectivity during later EIS and permitting processes. Therefore, they began labeling their advisory opinions as nonbinding, and their site evaluations as subject to further review.

Members of the public that we contacted were quite satisfied with the task force process. The task force allowed all parties to trade views on alternatives and potential problems before reaching a siting decision. It also assembled local, State, and Federal experts who could identify for all parties the applicable rules and requirements. However, there was some opinion that its scope should be broadened to include the need-for-power questions, and alternative approaches for meeting power needs.

State officials considered the interdisciplinary task force a valid approach for evaluating sites and identifying problems early. Working together on the task force had improved State-Federal relations and coordination. Task force participants exchanged views under less tension than in a formal hearing, project sponsors may have saved development expenses, and agencies got involved earlier in assessing projects and permits and thus were less likely to later challenge plans.

Regional planners' views were that the task force was a good public interest sounding board as diverse membership assured all views had a spokesperson. However, local concerns about the Intermountain Power Project's socioeconomic impacts were not fully addressed by the task force. The task force acknowledged major socioeconomic impacts at all Intermountain Power sites, but these impacts and related mitigating measures were not analyzed until after the site was chosen. Therefore, the communities near the site had a limited basis for negotiating timely agreements on socioeconomic impact assistance.

Eastern Kentucky Power Cooperative

A different approach to opening up site planning, one which relied heavily on the EIS scoping process to coordinate early interaction between industry, regulators and the public, was among the most complete and consistently satisfactory examples of open site planning we found. In this case, the Rural Electrification Administration (REA) and the Eastern Kentucky Power Cooperative produced an open site planning process by coordinating the timing of the Federal EIS process with the utility's evaluation of its final candidate sites. The facility being sited was a coal-fired powerplant consisting of two 650 MW units.

The utility began a siting study of its service area in late 1977. REA, which was the Federal agency responsible for the EIS, provided some advice during this very early stage of the siting study. A consulting firm did the initial screening of the service area for the utility, identified many potential sites, and eventually identified five sites as final candidates. The process of choosing a preferred site from the final candidates was then coordinated with the EIS process for the powerplant. The utility, using a different consulting firm, began gathering information on the final candidates and began consultations about them with regulators shortly after, in August 1978.

The initial regulatory scoping meetings involved considerable scrutiny of the utility's final candidate sites and included representatives of the several State and Federal agencies with roles in licensing or the EIS. Representatives of the utility and the Government agencies visited all five final candidate sites. Each candidate site was discussed in detail and major concerns were identified. The results of these scoping visits to the candidate sites and subsequent discussions among regulators and utility representatives were used in both site selection and the EIS.

The regulators' site visits and subsequent discussions identified problems with each candidate site. Although the sites were potentially licensable, the utility was advised to consider at least one more site that avoided the potential problems of locating in flood plains and on prime agricultural land. Additional consultations about siting criteria and further study yielded another site that seemed more acceptable and became the sixth candidate.

Like the regulatory scoping meetings, the public scoping meetings provided input to both site selection and the EIS. Separate scoping meetings were held near the candidate sites to learn what the public's concerns were. Most public statements supported the powerplant but some questioned whether the site choice was really still open, or raised questions about environmental or socioeconomic impacts.

The concerns of regulators and the public identified during scoping were considered in planning the environmental analysis of the final candidate sites. This analysis provided information needed for a final decision on a preferred site, the EIS, and various permits and approvals. To assure that the environmental analysis produced acceptable results, study plans were reviewed with State and Federal regulators during early 1979 meetings. Some planned studies were unneeded and were dropped. Others needed changes to be acceptable, so study plans were modified.

Instead of detailed environmental analysis of each candidate site, the most promising sites received the most scrutiny. Eventually a preferred site was chosen by the utility, with input from the Rural Electrification Administration, and subjected to detailed environmental analysis.

The sixth candidate site--the site added after the regulatory scoping meetings--became the preferred site. It was emphasized in drafting the EIS and was successfully licensed. The environmental studies and licensing went smoothly, with the final EIS issued in December 1980. The facility is currently under construction.

Overall, the participants were satisfied with this coordinated site selection and EIS process. The company's environmental affairs manager said:

"If we'd waited until the end of the studies to find out if they were satisfied, we could have had real problems. One can not keep secrets--People always find out and then there's a public uproar * * *. The open approach to site planning and the EIS may have cost us some money in the short run, but saved in the long run by avoiding lawsuits over permits, land acquisition, and so on."

The State's key official for this project characterized communication between the company and State as "very excellent." The company was probably unique in that State officials knew what the company was doing at every site planning stage. As a result of being well informed on the project and related issues, permitting went very well. The company and their consultants were willing to listen to regulators and try to accommodate them. According to the State official:

"That pretty well assured their success * * *. We found ourselves in the unusual situation, for an environmental protection agency, of testifying in favor of a utility company before another State agency * * *. This one came the closest of any I've worked on of meeting the goals of NEPA--getting the issues identified and resolved early. It shows how doing open site planning can save time and money."

Federal officials confirmed that early consultations influenced the final site selection and helped assure that the environmental analysis would meet regulators' needs. While most issues raised by the public would reportedly have been covered by regulators, the scoping process was seen as a good way to get the public involved. Early public involvement was seen as helping to head off later conflict because people are not surprised by a site selection and they know their views were heard.

"If you surprise the public with a siting decision they tend to get angry--you can't do business like that anymore * * *. The purpose of getting all in early is to avoid last minute denials--that's the * * * purpose of the new CEQ regulations."

General observations

Overall, the four cases discussed above are quite representative of our general findings regarding open site planning. They reflect the variations in processes or techniques used to open up site planning, variations in siting environments in different parts of the country, and the reasonably consistent opinions participants expressed about the open site planning processes they had experienced first hand.

While these cases all concerned proposed powerplants, open site planning processes appear to have broader application. For example, we found relatively open planning processes used in developing major facilities including a slurry pipeline, a syn-fuels plant, a refinery, a steelmaking facility, mineral developments, and others.

The timing for opening up facility planning was an important variable in distinguishing between the processes we found. Several processes were opened up to regulators and the public only after a site was chosen but still before permits were completed. Observers noted benefits from this approach in better communications and less uncertainty about the concerns of facility sponsors, regulators, and the public. Yet in such processes, communication was too late to reveal unexpected regulatory or public opposition to a site choice, or to indicate candidate sites' relative acceptability. The environmental and socioeconomic effects are largely established by the site decision, and sponsors interaction with regulators and the public is thus intended to defend the decision and gain their acceptance. That may well be a more constrained and contentious communication process than earlier consultations about how to make a credible and acceptable site choice.

It was frequently observed that open site planning can save time and money, but the effects are undocumented or imprecise. The net effect was obscured by the general lack of record keeping on time and money spent to open up early site planning and lack of a credible baseline case to compare with. Moreover, savings

were imprecisely described, most often as unusually smooth regulatory reviews, or as potentially costly delays or conflicts that were avoided.

Although measureable benefits remain unclear, some unmeasured benefits were perceived by each participant group.

Potential savings were mentioned not only by industry but also by State and Federal regulators and the public. Industry comments often highlighted benefits such as not having to spend time and money revising unacceptable environmental studies, delaying equipment deliveries, and renegotiating financial arrangements. Regulators cited smoother, more efficient regulatory reviews due to early agreement on the content and research techniques for documenting permit applications and EISs, and early opportunities for planning their workload and coordinating related State, and Federal requirements. Private citizens and environmental group representatives mentioned potential benefits such as influencing site choices and related impacts without recourse to costly independent research on environmental and socioeconomic issues, and expensive adversarial participation in long regulatory and judicial proceedings.

Another type of benefit, a more responsible public image, was also cited by different siting process participants. Industry representatives described relationships with regulators and the public as less adversarial and more trusting because of open site planning. Both regulators and citizens groups mentioned concerns about environmental programs acquiring an obstructionist image that could undermine their credibility and support for their goals. Thus, regulators saw benefits in the more positive image arising from early consultation with industry and the public about regulatory requirements and how to incorporate them into processes for choosing sites. Representatives of some citizens groups suggested that even in their role as critics, they could project a credible and objective image by constructively critiquing siting study methods and the resulting candidate sites during early planning. Each group cautioned, however, that their independent roles and prerogatives would not be compromised just to avoid siting related conflict.

Conflicts such as lawsuits can clearly occur despite a sincere open site planning process. For example, among the four main cases described above, the Intermountain Power Project reported encountering lawsuits in opposition. In that case, most lawsuits are already resolved and the project remains on schedule.

While the four cases discussed above were quite consistently satisfactory to siting process participants, our survey showed that was not always the case. Thus, to understand the current status of open site planning, it is necessary to consider why it is not used more.

WHY OPEN SITE PLANNING
IS NOT USED MORE

Despite participants' quite consistent satisfaction with it, open site planning is not common practice. While its newness partly accounts for its limited use, more important reasons range from lack of knowledge about managing effective public involvement processes, to distrust between participants and reluctance to change traditional practices. Some reasons open site planning is not used more are discussed briefly below.

A key limitation on open site planning is inexperience with truly interactive public involvement processes. For years the main process for involving the public, regulators, and industry in discussing siting concerns has been the formal, adversarial public hearing. As part of regulatory proceedings or public works planning, hearings allow concerned parties to add their facts and opinions to the official record. But as we reported in 1974: 1/

"Hearings, although allowing the public to express its opinions, do not provide a good forum for evaluating and discussing alternatives and issues * * * particularly where complex and controversial issues exist."

Current literature and interviews confirm hearings' relative ineffectiveness as a public participation technique. Hearings' timing, often during eleventh hour regulatory reviews and well after facility sponsors' commitment to a site, can further diminish the public's satisfaction with its participation.

Public involvement processes, according to most observers we contacted, have seen little improvement in recent years, although there is considerable agreement on the characteristics of more effective processes. Current opinion confirms our 1974 findings that public involvement processes should ensure:

- The public has an opportunity to be heard early, before major project decisions are made.
- Adequate notice of opportunities for involvement is provided to interested and potentially affected parties.
- Frequent forums are held throughout all stages of project development."

Many citizen groups stress that providing the public with complete and nontechnical information on energy projects' plans

1/U.S. General Accounting Office, Public Involvement In Planning Public Works Projects Should Be Increased, Washington, D.C., Dec. 6, 1974, B-153449, page i.

and expected impacts and with feedback acknowledging their concerns are important for effective public involvement. Citizen groups consistently supported open site planning, saying it could improve planning and reduce later delays from public opposition to energy projects if public involvement was real and effective, not token.

Widespread distrust among participants in energy facility siting also discourages open site planning. Citizen groups are skeptical that industry and Government really want the public to participate in site planning, and doubt that ineffective public involvement processes will see widespread improvement. Industry often distrusts the motives of the public and regulatory officials, suspecting that information provided during open site planning will later be used to oppose facilities, or that opponents of growth or of certain energy technologies will disrupt advisory groups or other planning processes. Industry attempts to open a dialog with regulators during early site planning have also been discouraged when the regulators' participation was delegated to junior staff who could not credibly interpret agency policy and regulations. On the other hand, a sequential industry approach to regulatory reviews has left regulators at one level out of earlier work and discouraged coordinated permitting between State and Federal agencies.

Financial considerations also discourage open site planning. Some individuals and interest groups said that participating in early planning for energy facilities will consume too much of their limited time and resources. Some industry representatives said early consultations with the public and regulators can be costly, and that disclosing siting intentions early will cause speculation that can increase land costs. Regulatory officials also say early consultations on site and EIS planning uses scarce resources and may not result in more efficient regulatory involvement overall--especially where early plans are canceled.

The technical complexity of some siting studies raises questions about the public's competence to understand and contribute to siting study criteria and methodology, or to evaluate study results.

Confidentiality of proprietary information could be compromised by opening up early planning for energy facilities, perhaps reducing companies' technological or marketing advantages.

Regulatory agencies' credibility could be damaged if their early consultations about siting matters are perceived as collusion, or as seriously limiting their independence in later regulatory reviews.

Tradition is also a factor limiting open site planning's use. For example, tradition or precedence are suggested as reasons for continuing industry's closed door project planning, for regulators' reluctance to participate before license applications are filed,

and for citizen groups relying on after-the-fact adjudication in regulatory processes or the courts to address energy facility siting issues.

These reasons for concern about open site planning are valid outgrowths of participant groups' experiences in energy facility siting. Such reasons help explain why open siting is not used more, and more importantly, they highlight issues that must be addressed in designing and managing open site planning processes. These concerns show why a real commitment to, and careful management of, open site planning are often cited as essential to realizing its potential.

CHAPTER 3

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Both environmental protection and domestic energy development are valid national goals. Frequent conflict between these goals is to be expected. Therefore, developing planning and decision processes for balancing these competing interests are essential to pursuing both. A long series of conflicts concerning proposed energy facilities has focused attention on the seriousness of our energy facility siting problem and on related planning and decision processes.

To date, most research on energy facility siting has focused on how Government officials and the public react through the regulatory systems to industry proposals for a specific facility at a specific site. Regulatory processes' quasi-judicial functions as final arbiters seem to require that they remain basically reactive and adversarial. Yet, these characteristics are now widely seen as having disadvantages in energy facility siting roles. Specifically, the eleventh hour nature of regulatory proceedings will continue to raise problems after industry has considerable preconstruction commitments at risk. The normally adversarial nature of those proceedings will continue to discourage compromise solutions and polarize the adversaries, leading to numerous costly administrative and judicial appeal procedures, and sometimes to questionable siting decisions.

Disadvantages of the historically reactive and adversarial interaction between siting process participants have not gone unnoticed. There is some recognition in industry, Government, and environmental groups of a need for less reactive and adversarial behavior and more cooperation in achieving the Nation's energy and environmental goals. Continued conflict between energy development and environmental protection advocates seems at times to threaten the interests of all parties. For example, an electric utility company official viewed the 1970s as a decade of largely unproductive confrontation and looked forward to a decade of productive cooperation in the 1980s. Many industry leaders have affirmed that view. From another perspective, environmental groups saw the Energy Mobilization Board as a threat to their interests that arose largely from continued conflict over energy facility siting. Similarly, many State Governments saw the proposed Board as a Federal threat to preempt their traditional siting roles because of apparently excessive energy facility siting controversy. This spreading recognition that continuing siting conflict can threaten the interests of all participants was captured by the Secretary of Energy when he wrote "Neither energy nor the

environment can stand alone in the world in which we live today and build for tomorrow." 1/

Continuing conflict has spurred the evolution of energy facility siting roles, and processes that began in the 1960s seemed to gather momentum through the 1970s. As noted earlier, questions for the 1980s include:

--Can earlier, more open planning processes for energy facility siting help us balance our energy and environmental goals?

--If so, what role can the Federal Government play in increasing the use of these processes?

In our judgment, open site planning for energy facilities can help balance our energy and environmental goals and the Federal Government can play a modest role in promoting it. Techniques are, however, still evolving and such processes are not a cure-all for siting problems.

While available experience and evidence are insufficient to fully assess the effects of open site planning, participants in the examples we found were quite consistently satisfied that it improved the siting process. Early consultations with regulators and the public can improve the quality of industry's facility siting plans and reduce uncertainty regarding eventual acceptance. Many observers see more open site planning as saving time and money for their companies. Such processes also can improve industry's credibility and image. By participating during early stages of site planning, the public can better influence the nature and extent of energy facilities' environmental and socioeconomic impacts. Regulators can pursue their goals more efficiently and effectively given more information and time for planning their licensing and EIS workloads, and given early opportunities to advise on criteria and methodologies for siting studies and environmental analyses. Exchanging information about proposed energy facilities through site planning processes open to all interested parties can also minimize any appearance of collusion.

While the potential benefits of open site planning are substantial, they are not assured. Open siting is still new and evolving. Designing and managing such planning processes to suit varying siting environments are challenging. For example, industry must compare the potential benefits with risks such as disclosing proprietary information. Regulators must weigh the potential for more efficient licensing reviews against the resources required for early consultations. All must be concerned with making public involvement real, not token, as has often been the case.

1/Department of Energy, The Energy Consumer, Washington, D.C., January 1981, p. 4.

In summary, open site planning is promising, but not a panacea for energy facility siting problems. By providing a carefully designed and managed non-adversarial forum for resolving potential energy facility siting conflicts early, open siting can potentially make site selection and development planning and subsequent regulatory reviews more efficient and effective. Where open site planning can lay the cooperative groundwork for efficient, predictable permitting, a voluntarily coordinated "fast track" type of review is possible. But is there an appropriate Federal role in promoting open site planning?

A MODEST FEDERAL ROLE

Articulating the Federal role in energy facility siting is difficult, as repeated but inconclusive consideration of proposed siting legislation in the Congress suggests. A major difficulty is that much of the initiative in siting matters lies with the energy industry and State Governments. Past Federal proposals that seem to threaten others' prerogatives, like the Energy Mobilization Board, have been defeated.

Although much of the initiative in siting matters rests with the energy industry and the States, the Federal Government also has a siting role and can provide some leadership in promoting more open, rational, and efficient siting processes. Existing Federal environmental policy in the NEPA and CEQ's implementing regulations is substantially in agreement with the open siting concept and can be used to promote its expanded use. To achieve such expansion will, however, require the cooperation of industry, the public, and State and local Governments.

The Council on Environmental Quality's 1978 regulations calling for an early, open, and coordinated EIS process are different in scope but quite compatible in concept with many State, industry, and public efforts to improve siting processes. As shown below, key elements of these regulations respond to many of the issues involved in developing more open site planning processes:

- Industry and State prerogatives are recognized by the voluntary nature of their participation in starting EISs earlier.
- The importance of State and public concerns about energy facility siting is acknowledged in requirements that Federal agencies identify their concerns at an early stage.
- The complexity and uncertainty of the regulatory process is recognized in requirements to identify and explain all Federal requirements to the project sponsor "at the earliest possible time."

--Uncertainty regarding potential delays in Federal decisionmaking is addressed by setting time limits on regulatory reviews of projects--an important goal of industry. However, quality in decision-making is supported by provision for time limit extensions.

--The potential for duplication of, and disagreement between, Federal and State regulatory processes is addressed in requirements that Federal agencies seek out their State counterparts and attempt to coordinate requirements and review processes.

While the Council's regulations provide a good general framework for the Federal role in energy facility siting, they alone are insufficient to assure that Federal agencies promote early and open planning for energy facility sites. Reasons why include:

--The regulations by themselves cannot assure sufficient management emphasis and resources needed for agencies' vigorous support of open site planning opportunities.

--They define "public" and encourage public involvement but provide little guidance on processes for effectively involving the public. 1/

--They do not define either the "earliest possible time in project planning," or specifically what initiatives Federal agencies should take to promote early EIS participation by industry, States, or the public.

The Council's regulations are written very broadly to accommodate the wide variety of Federal actions requiring an EIS. Therefore, it is considered impractical to define one standard process for effectively involving the public, or for identifying "the earliest possible time" to start an EIS in a variety of project or program planning processes. However, we believe that through management's emphasis on early, open environmental evaluation of proposed energy facilities, agencies can tailor their efforts to the needs of specific facility proposals and siting environments. Similarly, individual Federal agencies must emphasize making sufficient resources available if they intend timely environmental evaluation of proposed energy facilities. A further key to effective EIS processes is voluntary cooperation among industry, State and local Governments, and the public in openly discussing

1/Council on Environmental Quality, Memorandum For General Counsels, NEPA Liaisons And Participants In Scoping, Washington, D.C.: April 30, 1981. The guidance in this document may improve this situation somewhat.

the concerns of interested parties before siting and design options are foreclosed. Their voluntary cooperation is essential because there is no mandatory basis for starting the EIS process for an energy facility before a Federal permit application is filed. Such early cooperation also opens the door for planning coordinated regulatory reviews by Federal, State, and local Government. This coordination and more efficient permitting are sought voluntarily under CEQ's regulations, without introducing new laws, organizations, or levels of review into energy facility siting. Similar coordination and faster permitting were major purposes of the Priority Energy Project Act of 1979 and related Energy Mobilization Board type proposals. 1/

Industry and the States have much of the initiative and responsibility for siting energy facilities, and they are making efforts to improve the process; efforts which in our judgment show promise and merit support and encouragement. Nevertheless, there are at least three situations where Federal agencies could play an active leadership role in promoting more open site planning--each requiring the voluntary cooperation of other siting participants.

First, many open site planning processes operate independent of, and sometimes begin well before, initiation of the EIS process. Supporting these industry and State initiatives where later Federal involvement may occur is an appropriate Federal activity. For example, one State's site "banking" process searches for acceptable powerplant sites well in advance of specific development proposals. Such processes can raise questions about how Federal regulations might affect potential sites' acceptability. The resulting uncertainty may be minimized by early consultation with Federal officials to clarify the regulations' likely effect.

Second, experience shows that through early and open scoping processes the EIS can be, but often is not, used as a forum to open up the site planning process. This is due partly to traditional reluctance to involve Federal agencies at an early stage of site planning, and partly to the uneven performance of Federal agencies in initiating EISs before siting commitments are made. This situation can, however, be improved if Federal agencies actively encourage project sponsors, States and the public to voluntarily initiate the EIS process early during project planning, while siting options are still open. This would add meaning to the EIS process and help avoid litigation caused by inadequate public involvement in site selection and EISs. Also, Federal agencies' responsibilities under the EIS regulations can provide the basis and opportunity for industry and States to request early Federal cooperation. For example, Federal agencies can make

1/The proposed Priority Energy Project Act of 1979, (H.R. 4573) for example, was intended to "provide for a coordinated, prompt, and simplified process for Federal approval * * * expedite the Federal approval process * * * and to foster integration of local, State and Federal procedures for permitting * * *."

suggestions on siting study criteria and methodology, and identify issues concerning potential sites' acceptability.

Finally, more traditionally oriented energy facility sponsors and States might try open site planning if provided information on the different approaches being tried and their results. Providing such information and offering Federal cooperation to sponsors and States willing to try open site planning is, in our opinion, an appropriate Federal activity. We hope that this report will assist in providing such information.

RECOMMENDATIONS

We recommend that the Federal Government encourage the voluntary growth of open site planning processes for energy facilities. These siting processes should be promoted as a way to supplement, not supplant, traditional Federal roles in balancing energy development with environmental protection and public participation values.

The Secretaries of Energy and the Interior, the Administrator of the Environmental Protection Agency, and the Chairman of the Council on Environmental Quality should, where appropriate:

- Cooperate with established open site planning processes where later Federal involvement is likely. Some industry and State processes that operate independently of, and begin well before, the EIS process or permitting process may want early input from Federal agencies.
- Encourage an early, open EIS process, as conceived under CEQ's regulation implementing NEPA, that facilitates more open site planning for energy facilities. Specifically, early scoping that identifies regulatory and public concerns about alternative facility sites can help all interested parties clarify sites' acceptability and plan early to minimize siting conflicts.
- Advise siting process participants who are unfamiliar with it about experiences with open site planning so they can assess its usefulness, and cooperate with efforts to begin using such processes. This should be done in connection with agencies' existing NEPA responsibilities to consult with project sponsors during early planning.

AGENCY COMMENTS

The four agencies that provided formal comments on this report generally considered it accurate and its recommendations acceptable. These comments, from the Council on Environmental Quality, the Environmental Protection Agency, and the Departments of Energy and the Interior, are in appendix III.

APPENDIX I

NINETY-SIXTH CONGRESS

JOHN D. DINGELL, MICH., CHAIRMAN

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(EX OFFICIO)

CONGRESS OF THE UNITED STATES

HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

WASHINGTON, D.C. 20515

April 18, 1980

APPENDIX I

ROOM 3217

HOUSE OFFICE BUILDING ANNEX
PHONE (202) 225-1011

The Honorable Elmer B. Staats
Comptroller General
General Accounting Office
441 G Street
Washington, D. C. 20548

Dear Mr. Staats:

I understand that the General Accounting Office's Energy and Minerals Division is considering a review of Federal efforts to apply the National Environmental Policy Act (NEPA) during early planning for energy facilities. This study would focus on the concept that regulatory and general public concerns about energy projects can be most rationally and effectively addressed if this is done early in the process, while projects' plans are flexible enough to accommodate them.

I believe that a GAO study on this subject would be timely and very useful to our work and I am, therefore, requesting that this analysis be done for this Committee as soon as possible. Specifically, I would like GAO to evaluate federal agencies' involvement early in energy facility planning, as required by the Council on Environmental Quality's November 1978 regulations implementing NEPA, and improvements that might be realized through similar early involvement in the site selection process by State and local governments and the general public. This would be a promising and important effort to address the federal government's conflicting objectives for promoting domestic energy development and for protecting the environment.

Prior studies and testimony before the Congress indicate that government regulations, especially those on environmental protection and public reactions, create major uncertainties facing planners of energy or any major industrial projects. While CEQ's recent attempt to address these (and other) concerns is promising, it is unclear how effective this has been, since no thorough evaluations have been made.

I recognize that the resources available to GAO for this effort are not infinite and it will be desirable to focus on a few instances of processes and problems in carrying out the study. One such process, of which I am aware, concerns an effort by the Corps of Engineers in the Pacific Northwest to develop what they called a "goldfish bowl planning process". I do not know whether this process is still being used or what the experience was under the system which they had adopted at the time. I believe that an examination of their experience might be useful to you.

APPENDIX I

APPENDIX I

The Honorable Elmer B. Staats
April 18, 1980

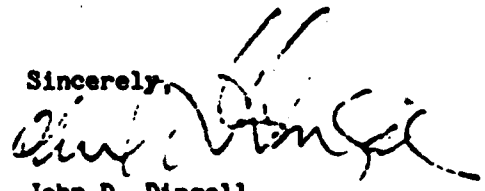
Another kind of analysis, which seems both relevant and illustrative of the conflicts between methods of approach to the planning process, might deal with the use of cogeneration facilities. The Tennessee Valley Authority is presently encouraging the use of these systems. Other utility systems in the country are far more resistant to the idea and it might be instructive for GAO to contrast the two reactions to this technology.

In short, I have come to believe that the process by which decisions are made on proposals with energy implications may be far more important than the merits of the individual proposals. I believe that this is an area to which the Energy Mobilization Board will direct itself, if legislation on that subject can be agreed on in the conference between the House and the Senate. I believe also that the results of any analysis which might be performed by the General Accounting Office might be of great assistance to the Energy Mobilization Board as it begins to identify the problem areas to which it expects to address itself in the next few years.

I look forward to working closely with the General Accounting Office in the execution of this project. If you should have questions about the study or ways in which it might be made more useful to policymakers, I would ask that you have someone contact Frank Potter of the staff of the Subcommittee at 225-4646.

With every good wish,

Sincerely,



John D. Dingell
Chairman

JDD:pcl

REPRESENTATIVE LIST OF ORGANIZATIONS
AND INDIVIDUALS CONTACTED

Federal organizations

Council on Environmental Quality
Rural Electrification Administration
 (Agriculture Department)
Department of the Interior
Environmental Protection Agency
Corps of Engineers (Army Department)
Department of Energy
Federal Energy Regulatory Commission
Congressional Research Service
Congressional Budget Office
Department of Commerce

Industry groups, energy facility
sponsors, and their consultants

National Association of Rural Electric Cooperatives
American Petroleum Institute
American Mining Congress
National Coal Association
Edison Electric Institute
American Public Power Association
Electric Power Research Institute
Arthur D. Little, Inc.
Tera Corporation
Stone and Webster Engineering Corporation
United Engineers and Constructors Incorporated
Charles T. Main, Inc.
Ebasco Services Inc./Envirosphere Company
Central Main Power Company
Montana Power Company
Pennsylvania Power and Light Company
Pacific Gas and Electric Company
Southern California Edison Company
Energy Fuels Company
Public Service Company of New Mexico
Utah Power and Light Company
Nevada Power Company
Florida Power and Light Company
Baltimore Gas and Electric Company
Ontario Hydro
AMAX
Washington Water Power Company
Potomac Electric Power Company
New England Power Service Company
Jacksonville Electric Authority
Seminole Electric Cooperative
San Diego Gas and Electric Company
Northern States Power Company

APPENDIX II

APPENDIX II

Eastern Kentucky Power Cooperative
Basin Electric Cooperative
Tri-State Generation and Transmission Association, Inc.
Rocky Mountain Energy Company
Virginia Electric and Power Company
Rio Blanco Oil Shale, Inc.
Multi-Mineral Corporation
Provo City Power Company
Utah Resources International
Deseret Generation and Transmission Cooperative
Northeast Utilities Company

Citizen groups

Sierra Club (Washington, D.C., New Mexico, Utah)
New Mexico Citizens for Clean Air and Water
Environmental Policy Center
Environmental Action Foundation
The Youth Project
National Wildlife Federation (Washington, D.C.,
South Carolina)
National Audubon Society
Natural Resources Defense Council
Friends of the Earth
ACORN
Western Organization of Resource Councils
Colorado Open Space Council
Northcentral West Virginia Legal Aid Society
Great Lakes Energy Alliance
Northern Rockies Action Group
Get Oil Out
Northern Plains Resources Council
Pennsylvania Environmental Research Foundation
Spokane Indian Tribal Council
Colville Indian Tribal Council

State and local governments, regional organizations

All 50 States (This included a considerable variety of
State organizations, reflecting the diversity among State
governments.)
National Governors' Association
Council of State Governments
National Association of Attorneys General
Southern States Energy Board
New England River Basin Commission

Other contacts

MAP Associates
Clark-McGlennon Associates, Inc.
RESOLVE

APPENDIX II

APPENDIX II

ROMCOE

Dr. S.B. Lundstedt, Ohio State University
Dr. D. Nelkin, Cornell University
Dr. Ralph Drtina, Lehigh University
Dr. D. Ducsik, Clark University
TOSCO Foundation
Dr. R. Robson, University of Utah
Dr. E. Murphy, Harvard University
Dr. H. Burgess, Massachusetts Institute of Technology
Dr. E. Whitlatch, Ohio State University
American Arbitration Association
Dr. G. Cormick, University of Washington
New England Environmental Mediation Project
Mr. B. Terris, Attorney

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

Mr. Henry Eschwege
Director
Community and Economic Development Division
United States General Accounting Office
Washington, D.C. 20548

September 11, 1981

Dear Mr. Eschwege:

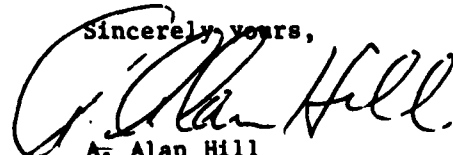
In response to your request for our review and comment of your proposed report, the Council on Environmental Quality agrees that open site planning deserves attention as a means of identifying potential problems early in the process of developing energy facilities. The Council recognizes the role of the federal government will be quite limited in the development of projects which do not involve a major federal action. Nevertheless the Council agrees that the voluntary utilization of the open siting concept should be encouraged. Further, cooperation between the federal government, the states and the private sector is a highly desirable goal which CEQ's NEPA regulations encourage and which the Council strongly supports.

In carrying out its responsibility to implement NEPA, the Council has found that, in general, early identification of the issues reduces delay and paperwork, and aids the decision-maker. In this regard, the scoping process has been identified as one of the most successful sections of the NEPA process. The Council has recently published a memorandum on the subject of scoping guidance (April 30, 1981) and is currently reviewing the implementation of NEPA regulations by the various federal agencies. In this manner, the Council hopes to resolve any uncertainty on the part of agencies, as identified in the draft report.

The Council is also interested in evaluating and encouraging methods of coordinating state and federal environmental regulatory processes. The Council has plans to study the Colorado Joint Review Process, referred to in the draft report to determine if the joint review process can be more broadly utilized in other states and for other kinds of projects.

The Council has no objection to the recommendations reached by the report, although it shares the concerns enunciated regarding protection of confidential and proprietary information and the difficulty of presenting complex technical matters to the public. Open siting may not be an appropriate process for all proposals, nor is it likely to result in trouble free siting each time the process is utilized. At this time, it appears that the very limited federal role outlined in the report is appropriate to encourage the voluntary use of open siting.

Sincerely yours,



Alan Hill
Chairman



Department of Energy
Washington, D.C. 20585

SEP 28 1981

Mr. J. Dexter Peach
Energy and Minerals Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

The Department of Energy (DOE) appreciates the opportunity to review and comment on the GAO draft report entitled "Open Site Planning: A Promising Technique for Efficient Energy Facility Siting."

GAO is to be commended for the extensive research of the subject as indicated by Appendix II of the draft which provides a representative list of organizations and individuals contacted.

Although the study conveys a description of open site planning, no formal definition is provided. Perhaps an adequate definition could be developed from the last sentence of the report's introduction on page 1 and from the first paragraph on page 8.

The draft report presents a good picture of the growth in the complexities of the regulatory process and recognizes that there is no simple, clear-cut site planning process applicable to all energy facilities, industries, localities, States and Federal agencies. DOE agrees that open site planning may continue to gain acceptance as a process with the "potential to save time and money, and result in more acceptable energy facility planning." The discussion of the expected benefits and liabilities for the Pennsylvania Power and Light example, pages 27-32, was most informative.

The draft report gives a very objective appraisal of why open site planning is not used more. DOE agrees with the conclusions, especially the one on page 49, which states "... open site planning for energy facilities can help balance our energy and environmental goals and the Federal government can play a modest role in promoting it. Techniques are, however, still evolving and such processes are not a cure-all for siting problems." Additional experience and evidence are needed before final assessment of the value of open site planning can be made.

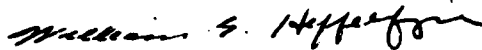
The Department of Energy concurs with the recommendations found on page 55 of the report. DOE will continue its cooperation and coordination with industry and citizen groups as well as with local, State, and other Federal agencies to achieve effective energy development in balance with environmental protection and public participation values.

APPENDIX IV

APPENDIX IV

Comments of an editorial nature have been provided directly to members of the GAO audit staff. DOE appreciates the opportunity to comment on this draft report and trusts that GAO will consider the comments in preparing the final report.

Sincerely,

A handwritten signature in dark ink, appearing to read "William S. Heffelfinger", is written above the typed name.

William S. Heffelfinger
Assistant Secretary
Management and Administration



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

SEP 15 1981

Mr. Milton J. Socolar
Acting Comptroller General
of the United States
Washington, D.C. 20548

Dear Mr. Socolar:

Thank you for the opportunity to review and comment on General Accounting Office draft report entitled "Open Site Planning; A Promising Technique for Efficient Energy Facility Siting."

We concur with the recommendations in the report and will soon begin implementation of means to accomplish the open site planning concept. The necessity for this proposal has also been identified by individual States, members of the energy industry, and by our own in-house reviews.

Sincerely,

Acting Assistant Secretary for
Land and Water Resources

Enclosures

Department of the Interior Response to
GAO Recommendations "Open Site
Planning; A Promising Technique
for Efficient Energy Facility Siting"

RECOMMENDATION

The Secretary of Interior should:

Cooperate with established open site planning processes where later Federal involvement is likely. Some industry and State processes that operate independent of, and begin well before the EIS process or permitting, may want early input from Federal agencies (page 55).

RESPONSE

We agree with the recommendation of early participation in the open site planning process. Participation by Interior agencies in this process will be encouraged.

The Bureau of Land Management utilizes reimbursable funds to pay the cost of processing right-of-way applications as provided under terms of the Mineral Leasing Act and FLPMA. Reimbursable funding is triggered by receipt of an application as provided by current regulations. Because of restricted funding, BLM's opportunity to participate in early open site planning prior to the receipt of an application is limited. They are currently evaluating changes in the regulations which would permit triggering of reimbursable funding by receipt of an application or a prospective applicant's notice of intent.

RECOMMENDATION

Advise siting process participants who are unfamiliar with open site planning processes about experiences with open site planning so they can assess its usefulness and cooperate with efforts to begin using such processes to identify acceptable energy facility sites (page 55).

Encourage an early, open EIS process that facilitates more open site planning for energy facilities. Specifically, early scoping that identifies regulatory and public concerns about alternative facility sites can help all interested parties clarify sites' acceptability and plan early to minimize siting conflicts (page 55).

RESPONSE

Interior agencies recognize that open site planning has merit and will benefit all involved parties in most project proposals. There have been instances where the applicants feel that early open site planning is not advantageous because of business competition. Even in the case of electric generating plants where electric companies seldom compete for the electricity market, there is competition for water or allowable reduction of air quality standards when locating a generating plant.

BLM has recently completed an in-house review of the energy facility siting process. In the report (copy attached), there are several recommendations which support the concept of early involvement and open site planning. (See items No. 10, 18, 23, 25, 26, 27, and 29). Implementation of these recommendations will support the open site concept, early scoping, and full participation by the public, State and local governments, as well as Federal agencies.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 16 1981

Mr. Henry Eschwege
Director
Community and Economic Development
Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

The Environmental Protection Agency (EPA) has reviewed the General Accounting Office (GAO) draft report, "Open Site Planning: A Promising Technique for Efficient Energy Facility Siting." Below are the Agency's comments on the draft report.

The draft report provides an accurate and balanced, though general, discussion of the open site planning concept and related problems encountered by industry and regulatory agencies. However, we believe that the final report may be improved by the following:

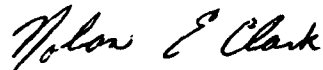
- inclusion of more discussion on the potential benefits of open site planning;
- emphasis on the strong link between siting decisions and subsequent permitting actions (it is simpler to be concerned with and acquire information on the site and its related problems during site selection than it is during the permitting process);
- more specific recommendations, especially as to how Federal agencies should implement the recommendations (i.e., methods with which to facilitate open site planning or forums in which the open site concept could be promoted); and
- additional references providing information on the organization and progress of open site planning projects.

EPA is currently pursuing a number of activities directly and indirectly promoting the open site planning concept. EPA's Energy Policy Division is sponsoring a survey of state permitting/siting innovations. EPA and the National Governor's Association will jointly sponsor workshops disseminating the findings of this project in the Fall of 1981. EPA's regional offices are attempting to cooperate fully with all state and industry sponsored siting and permitting processes. EPA Region VIII's involvement in Colorado's

Joint Review Process provides a good example of this cooperation. On a more general level, EPA continues to promote the need for early contact with project sponsors to discuss both siting and permitting concerns. Recent examples of this effort include EPA Region IV's assistance in siting and permitting coal-fired power plants sponsored by the Seminole Electric Cooperative and the Big Rivers Electric Corporation. EPA will continue to document and publicize the benefits of preapplication conferences and early EIS scoping sessions.

We appreciate the opportunity to comment on the draft report prior to its submission to Congress.

Sincerely yours,



Nolan E. Clark
Associate Administrator for
Policy and Resource Management

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